

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment) NOTICE OF PUBLIC HEARING ON
of ARM 17.30.716 pertaining to) PROPOSED AMENDMENT
categories of activities that)
cause non-significant changes) (WATER QUALITY)
in water quality)

TO: All Concerned Persons

1. On July 31, 2003 at 9:00 a.m., the Board of Environmental Review will hold a public hearing in Room 35 of the Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment of the above-stated rule.

2. The Board will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact the Board no later than 5:00 p.m., July 21, 2003, to advise us of the nature of the accommodation that you need. Please contact the Board Secretary at P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2544; fax (406) 444-4386; or email ber@state.mt.us.

3. The rule proposed to be amended provides as follows, stricken matter interlined, new matter underlined:

17.30.716 CATEGORIES OF ACTIVITIES THAT CAUSE NON-SIGNIFICANT CHANGES IN WATER QUALITY (1) In addition to the activities listed in 75-5-317, MCA, the ~~following~~ categories or classes of activities that are identified in this rule have been determined by the department to cause changes in water quality that are nonsignificant due to their low potential for harm to human health or the environment and their conformance with the guidance found in 75-5-301, MCA~~;~~.

~~(a) a change in water quality resulting from the use of an individual sewage system if:~~

~~(i) the system is constructed in accordance with ARM 17.36.304;~~

~~(ii) the distance from the drain field, aligned with the longest dimension perpendicular to the direction of ground water flow, to the nearest state surface water is greater than 300 feet in the direction of ground water flow;~~

~~(iii) for a sewage system located on a lot that is less than 20 acres in area, the existing concentration of nitrate as nitrogen in the ground water in the uppermost aquifer beneath the lot is less than 2.0 mg/L and there is no evidence of nitrate as nitrogen concentrations above 2.0 mg/L in ground water in the same aquifer within 1320 feet of the exterior boundaries of the lot;~~

~~(iv) the soils in the drain field area are medium textured (very fine sandy loam or finer) throughout the upper 8 feet;~~

- ~~(v) the system serves only a single domestic living unit that is not within a major subdivision; and~~
- ~~(vi) the system meets the following criteria:~~
 - ~~(A) for a system located on an individual lot that is 1 acre in area or larger:~~
 - ~~(I) the depth to the uppermost aquifer or fractured bedrock unit beneath the site is greater than 100 feet; and~~
 - ~~(II) the percolation rate of the soil beneath the drain field is greater than 30 minutes per inch;~~
 - ~~(B) for a system located on an individual lot 2 acres in area or larger:~~
 - ~~(I) the depth to the uppermost aquifer or fractured bedrock unit beneath the site is greater than 50 feet; and~~
 - ~~(II) the percolation rate of the soil beneath the drain field is greater than 30 minutes per inch;~~
 - ~~(C) for a system located on an individual lot 5 acres in area or larger:~~
 - ~~(I) the depth to the uppermost aquifer or fractured bedrock unit beneath the site is greater than 30 feet; and~~
 - ~~(II) the percolation rate of the soil beneath the drain field is greater than 10 minutes per inch; and~~
 - ~~(D) for a system located on an individual lot that is 20 acres in area or larger:~~
 - ~~(I) the depth to the uppermost aquifer or fractured bedrock unit beneath the site is greater than 20 feet; and~~
 - ~~(II) the percolation rate of the soil beneath the drain field is greater than 10 minutes per inch.~~
- ~~(2) For purposes of (1)(a) of this rule:~~
 - ~~(a) "Aquifer" means a saturated, permeable geologic material that is capable of sustained groundwater yield sufficient to meet domestic needs.~~
 - ~~(b) The depth to the top of an unconfined aquifer is the depth to the seasonally high water table within the permeable geologic material.~~
 - ~~(c) When the department is required to determine whether a proposed activity may cause degradation under ARM 17.30.706(2), the applicant must provide evidence that demonstrates to the department's satisfaction that the individual sewage system for which an application has been filed meets the criteria of (1)(a) of this rule.~~
- ~~(3)(a) The department may determine that the categorical exclusion referenced in (1)(a) of this rule does not apply to all lots or to lots within one or more of the size categories in (1)(a)(v) of this rule within a specific geographic area. This determination must be based upon information submitted in a petition demonstrating that the categorical exclusions should not apply within that area. A petition submitted under this rule may be considered only if it is submitted by a local governing body, a local department or board of health, a local water quality district, or by either 25% or 20, whichever is fewer, of the landowners (or persons with a contract interest in land) within the affected geographic area.~~
- ~~(b) A petition submitted under this rule must contain the following information:~~

~~(i) a legal description of the petition area, which is the geographic area proposed to be excluded from consideration under (1)(a) of this rule;~~

~~(ii) a declaration as to which lot size categories in (1)(a)(vi) of this rule are proposed to be excluded from the categorical exclusion in (1)(a) of this rule;~~

~~(iii) a detailed description of the soils, geology, and hydrogeology of the area described in (3)(b)(i) above;~~

~~(iv) evidence that the site conditions for the petition area meet the applicable criteria of (1)(a) of this rule;~~

~~(c) If the evidence submitted under (3)(b)(iv) above does not support a finding that the site conditions in the petition area meet the applicable criteria in (1)(a)(vi) of this rule, the department shall notify the petitioner in writing that the categorical exclusions do not apply within the petition area and the department may not take further action on the petition.~~

~~(d) If the department finds that the site conditions for the petition area meet the applicable criteria in (1)(a) of this rule, the department shall notify the petitioner of its determination in writing, and the petitioner shall submit additional information that must include the following:~~

~~(i) a current listing from a title insurance company of the names and addresses of all persons who either own or have a contract interest in land within the petition area; and~~

~~(ii) data from groundwater samples taken from wells that withdraw water from the uppermost aquifer underlying the petition area or from wells that withdraw water from the uppermost aquifer underlying an area within the same or adjacent county with similar climatic, soil, geologic, and hydrogeologic conditions and a density of individual sewage systems similar to that allowed in (3)(b)(ii) above. The groundwater data demonstrate that one of the following conditions is met:~~

~~(A) nitrate as nitrogen concentrations exceed 5.0 mg/L in groundwater samples from more than 25% of at least 30 wells that are not located within a standard mixing zone, as defined in ARM 17.30.517(1)(d)(viii) for a septic system; or~~

~~(B) data from groundwater samples collected at least 3 years apart from the same 15 wells indicate a statistically significant increase of greater than 1.0 mg/L in nitrate as nitrogen concentrations in the uppermost aquifer.~~

~~(e) Within 90 days of receipt of the information required in (3)(d) above, the department shall issue a preliminary decision as to whether the petitioner has satisfied the requirements set forth in (3)(b) and (d) above and describe the reasons for either granting or denying the petition. The preliminary decision must be mailed to the petitioner and to all landowners or persons with a contract interest in land within the petition area and must include the following information:~~

~~(i) a description of the petition area;~~

~~(ii) a summary of the basis for the preliminary decision including any modifications to the boundaries of the petition area;~~

~~(iii) a description of the procedures for public participation and of the opportunity to comment prior to the department's final decision on the petition;~~

~~(iv) the ending dates of the comment period and the address where comments will be received;~~

~~(v) procedures for requesting a hearing; and~~

~~(vi) the name and telephone number of a person to contact for additional information.~~

~~(f) Within 60 days after the close of the public comment period, the department shall issue a final decision and provide written notice of its decision to the petitioner and to each person who submitted written comments. The final decision must set forth the department's reasons for granting or denying the petition and must include a response to all substantive comments received by the department during the public comment period or during any hearing.~~

(2) Except as provided in (5), a subsurface wastewater treatment system (SWTS) that meets all of the criteria in (2)(a) and falls within one of the categories in (2)(b) is nonsignificant.

(a) The SWTS, including primary and replacement drainfields must meet all of the following criteria:

(i) the drainfield must be 1,000 feet or more (400 feet or more for lots that meet the criteria in (2)(b)(iv)) from the nearest downgradient high quality state surface water that might be impacted. This distance may be reduced by 50% (to 500 and 200 feet, respectively) if the drainfield is pressure-dosed;

(ii) if the drainfield is not pressure-dosed:

(A) the soil percolation rate must be between 16 and 50 minutes per inch, if a percolation test has been conducted for the drainfield; and

(B) the natural soil beneath the absorption trench must contain at least six feet of very fine sand, sandy clay loam, clay loam, or silty clay loam;

(iii) the SWTS must serve no more than two single-family residences, or must serve a facility that produces non-residential, non-industrial wastewater with a wastewater design flow of 700 gallons per day or less;

(iv) there must be only one SWTS receiving wastewater from the lot;

(v) the SWTS must be located on the lot where wastewater is produced;

(vi) the SWTS must meet the current design standards defined in ARM Title 17, chapter 36, subchapter 3 and department Circular DEQ-4; and

(vii) for lots smaller than 20 acres, and for lots 20 acres and larger on which the drainfield is 500 feet or less from the downgradient property boundary, the background nitrate (as N) concentration in the shallowest ground water must be less than three mg/L.

(A) The department may require multiple ground water samples over a specified time period to determine whether seasonal variation of ground water nitrate concentrations may affect compliance with this requirement.

(b) The SWTS must fall within one of the following five categories:

(i) for category one:

(A) the lot size is two acres or larger;

(B) the percolation rate is 16 minutes per inch or slower, if a percolation test has been conducted for the drainfield;

(C) the natural soil beneath the absorption trench contains at least six feet of very fine sand, sandy clay loam or finer soil; and

(D) the depth to bedrock and seasonally high ground water is eight feet or greater;

(ii) for category two:

(A) the drainfield is pressure-dosed;

(B) the lot size is two acres or larger;

(C) the percolation rate is six minutes per inch or slower, if a percolation test has been conducted for the drainfield;

(D) the natural soil beneath the absorption trench contains at least six feet of medium sand, sandy loam or finer soil; and

(E) the depth to bedrock and seasonally high ground water is 12 feet or greater;

(iii) for category three:

(A) the drainfield is pressure-dosed;

(B) the lot size is one acre or larger;

(C) the subdivision consists of five lots or fewer;

(D) there is no existing or approved SWTS within 500 feet of the subdivision boundaries;

(E) the percolation rate is six minutes per inch or slower, if a percolation test has been conducted for the drainfield;

(F) the natural soil beneath the absorption trench contains at least six feet of medium sand, sandy loam or finer soil; and

(G) the depth to bedrock and ground water is 100 feet or greater;

(iv) for category four:

(A) the total number of subdivision lots that were reviewed pursuant to 76-4-101 et seq., MCA, and were created in a county during the previous 10 state fiscal years is fewer than 150; and

(B) the lot is not within one mile of the city limits of an incorporated city or town with a population greater than 500 as determined by the most recent census; or

(v) for category five:

(A) the SWTS is a level II system;

(B) the lot size is two acres or larger;

(C) the bottom of the drainfield absorption trenches is not more than 18 inches below ground surface; and

(D) the depth to limiting layer (based on test pit data) is greater than six feet below ground surface.

(3) A mixing zone is not required for SWTSs that meet the criteria in this rule. However, SWTS drainfields must be located so that there is a 100-foot setback between existing and

approved water supply wells and the boundaries of a 100-foot mixing zone that is provisionally designated for purposes of applying this setback.

(4) The department may require that on-site information be provided to verify any of the criteria required in this rule.

(5) Notwithstanding an activity's designation as nonsignificant in this rule, the department may review the activity for significance under the criteria in ARM 17.30.715(1) based upon the following:

(a) cumulative impacts or synergistic effects;

(b) secondary byproducts of decomposition or chemical transformation;

(c) substantive information derived from public input;

(d) changes in flow;

(e) changes in the loading of parameters;

(f) new information regarding the effects of a parameter;

or

(g) any other information deemed relevant by the department and that relates to the criteria in ARM 17.30.715(1).

AUTH: 75-5-301, 75-5-303, MCA

IMP: 75-5-303, 75-5-317, MCA

REASON: The proposed amendments to (1) are grammatical. Because amendments to the remainder of the current rule are extensive, the current language is proposed for deletion and will be replaced with new (2) through (5).

The amendments to the current rule were deemed necessary because historically very few on-site wastewater treatment systems have met the criteria in the current rule, even though many other systems are legitimately nonsignificant sources of pollution. The Department believes that there are many SWTSS that could safely be approved without having to meet the more complex requirements in ARM 17.30.715. Although exact records were not maintained, the Department estimates that fewer than 30 SWTSS have been determined nonsignificant since the effective date of the current rule in 1998. The Department believes that the proposed amendments will be applicable to many more SWTSS while still preventing degradation of high quality state waters.

Subsection (2)(a) lists general criteria that a SWTSS must meet. Subsection (2)(b) includes five site-specific categories. A SWTSS must meet all the requirements in (2)(a) and fall within one of the five categories in (2)(b) to be considered a nonsignificant source of pollution under the proposed amendments.

The general requirements in (2)(a) are included to insure that a SWTSS is appropriate to be considered for exclusion from meeting the requirements in ARM 17.30.715. The requirements in (2)(a) are necessary to insure that:

1. the SWTSS is not located too close to surface waters (the distance varies depending on the use of pressure dosed drainfields and the amount of recent subdivision growth in the county), which can be adversely affected by relatively low

concentrations of the nutrients (nitrogen and phosphorus) that are present in wastewater [(2)(a)(i)];

2. the optimum type of soil is present for treatment. If the optimum soil type is not present, the drainfield must be pressure-dosed, which provides better distribution and treatment than the more common gravity-dosed drainfield [(2)(a)(ii)];

3. the SWTS is a relatively small system serving one or two homes or a small commercial establishment [(2)(a)(iii)];

4. tight clustering of SWTS does not occur, which decreases the chances of degrading ground water [(2)(a)(iv through v)] ;

5. only properly constructed SWTS qualify [(2)(a)(vi)]; and

6. the existing ground water nitrogen concentration is less than 3 mg/L and has not already been impacted by other sources of nitrogen (USGS studies have stated that ground water with nitrate concentrations greater than 3 mg/L is typically an indication of anthropogenic impacts) [(2)(a)(vii)].

The first three categories in (2)(b) [(2)(b)(i), (2)(b)(ii), and (2)(b)(iii)] are similar to the categories in (1)(a)(vi) of the current rule because they use a combination of lot size, soil types, percolation rates, depth to ground water and depth to bedrock as the criteria. The numeric requirements for each criterion in the proposed amendments are different than the current rule, and are designed to allow more STWSs to meet the proposed requirements while still preventing degradation. The criteria in (2)(b)(iii) only apply to subdivisions of five or fewer lots because this category applies to relatively small lots (one acre). The Department does not believe that large subdivisions (with more than five lots) consisting of small lots should qualify for this category.

The fourth category in the proposed amendments [(2)(b)(iv)] does not have a comparable category in the current rule. This category was included because the Department recognized that requiring compliance with ARM 17.30.715 was not necessary for a large portion of the state that has very little population growth (primarily the eastern two-thirds of the state). Based on current records, this exemption will include the following 31 counties: Glacier, Toole, Liberty, Pondera, Chouteau, Judith Basin, Wheatland, Golden Valley, Musselshell, Petroleum, Blaine, Phillips, Valley, Garfield, Rosebud, Treasure, Daniels, Sheridan, Roosevelt, McCone, Dawson, Wibaux, Prairie, Fallon, Custer, Powder River, Carter, Richland, Teton, Meagher, and Big Horn. The Department intends to review and revise (if necessary) this list at the end of each fiscal year. Therefore, the counties that meet this criterion could change every year.

The fifth sub-category in the proposed rule [(2)(b)(v)] does not have a comparable category in the current rule. This category is included to provide incentive to use a level II SWTS which provides a higher degree of treatment for nitrogen, total suspended solids, biological oxygen demand and pathogens. The Department believes that increased use of level II SWTSs is an overall benefit to the quality of state waters.

Section (2) of the proposed amendments includes numerous numeric criteria including: distance to surface water or a town, percolation rate, depth to ground water, depth to bedrock, depth to limiting layer, and lot size. These numeric criteria are based on the experienced judgment of experts in the Department and members of the public (including local sanitarians) that helped to prepare the proposed amendments. The numeric criteria are not based on an equation or similar system. The numeric criteria that each SWTS must meet are designed, in the judgment of the persons involved with preparing the proposed amendments, to protect ground water and surface water from significant degradation.

Section (3) of the proposed amendments establishes a horizontal setback that applies to SWTS drainfields. The setback is necessary to provide protection for existing and approved water supply wells.

Section (3) of the current rule includes a petition process that allows local landowners or local government entities to restrict the use of ARM 17.30.716 when the petitioners believe that state waters will be degraded as a result of the proposed SWTSs. The proposed amendments repeal that petition process because it has not been used since the rule was promulgated. The proposed procedure in (5) allows for review of the appropriateness of the exclusions provided in this rule based on site-specific factors.

4. Concerned persons may submit their data, views or arguments, either orally or in writing, at the hearing. Written data, views or arguments may also be submitted to the Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620-0901, faxed to (406) 444-4386 or emailed to the Board Secretary at ber@state.mt.us and must be received no later than 5:00 p.m., July 31, 2003. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

5. Thomas Bowe, attorney for the Board, has been designated to preside over and conduct the hearing.

6. The Board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supplies; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Such written request may be mailed or delivered to the Board of

Environmental Review, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, emailed to the Board Secretary at ber@state.mt.us or may be made by completing a request form at any rules hearing held by the Board.

7. The bill sponsor notice requirements of 2-4-302, MCA, apply and have been fulfilled.

BOARD OF ENVIRONMENTAL REVIEW

By: Joseph W. Russell
JOSEPH W. RUSSELL, M.P.H.,
Chairman

Reviewed by:

James M. Madden
JAMES M. MADDEN, Rule Reviewer

Certified to the Secretary of State June 16, 2003.